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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/777,755	02/06/2001	Nigel Peter Topham	0808.65202	4475

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GREER, BURNS & CRAIN  
300 S WACKER DR  
25TH FLOOR  
CHICAGO, IL 60606

EXAMINER

KIM, KENNETH S

ART UNIT	PAPER NUMBER
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2111

DATE MAILED: 02/03/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Applicati n N .

09/777,755

Applicant(s)

TOPHAM, NIGEL PETER

Examiner

Kenneth S KIM

Art Unit

2111

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

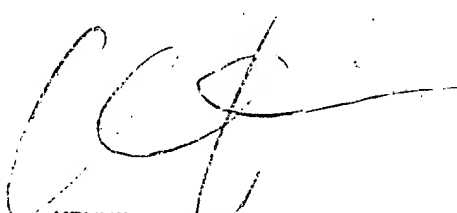
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 26 and 27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-7, 14-16, 21-25, and 28 is/are rejected.
- 7) ☒ Claim(s) 4, 8-13 and 17-20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

  
KENNETH S. KIM  
PRIMARY EXAMINER

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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1. Claims 1-25 and 28 have been elected for examination, and claims 26 and 27 remain non-elected.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 3, 14, and 21-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(a) Claim 3, it is not clear what is dependent on the sequence number.

(b) Claim 14, "said information" lack antecedent basis.

(c) Claims 3, 21 and 25, it is not clear what is meant by "being dependent on said sequence number".

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3, 5-7, 15, 16, and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Wang et al, U.S. Patent No. 5,826,055.

Wang et al teaches the invention as claimed in claim 1 including a processor comprising:

(a) an instruction issuing unit which issues, in a predetermined sequence, instructions to be executed, said sequence of instructions including pre-selected value producing instructions which, when executed, produce respective values (col. 6, line 23; col. 8, lines 58 and 59),

(b) at least one instruction executing unit which executes the issued instructions (col. 9, line 47),

(c) a register unit having a plurality of registers, which stores values produced by the executed instructions (col. 8, line 61),

(d) a sequence number assigning unit which assigns said value produced by said value producing instructions respective sequence numbers according to the order of issuance of their respective value producing instructions (col. 7, lines 16 and 20),

(e) a register allocating unit which allocates each said produced value one of said registers, for storing that produced value, in dependence upon the sequence number assigned to that value (col. 9, line 49), and

further teaches as in claims 2, 3, 5-7, 15, and 16,

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(f) wherein said register allocating unit allocates said register independent of information contained in the value producing instruction (independent of logical register operand in the instruction format) – claim 2,

(g) wherein the sequence of instructions includes a subsequent instruction using the value produced and containing information identifying the register allocated for storing that value (col. 11, lines 58-65) – claim 3

(h) wherein said register unit includes a renaming unit that maps logical register to each allocated register (col. 6, lines 51-56) - claims 5-7,

(i) wherein said instruction issuing unit issues a plurality of instructions simultaneously, which are assigned different respective sequence numbers (202, col. 6, line 24) – claims 15 and 16.

The processor claim 28 is equivalently rejected based on the same reason.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Motomura taught a method of using forward map buffer and result value registration buffer.

7. Claims 4, 8-13, and 17-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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The claims would be allowable for the references of prior art do not teach the use of sequence offset information contained in the value requiring instruction, renaming unit disable mode and mapping offset, or software pipelined loop processing.

8. Claims 21-25 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action, for the references do not teach the compile method and product comprising the step of coding value requiring instructions with sequence number offset information.

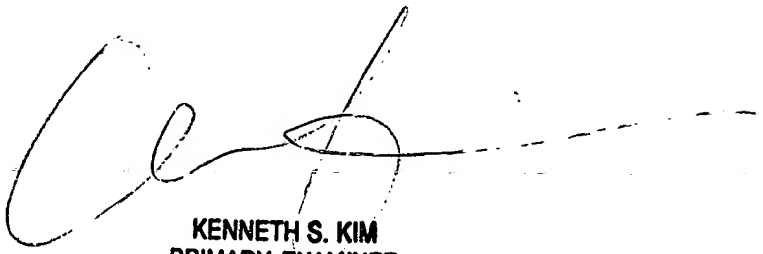
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth S KIM whose telephone number is (703) 305-9693. The examiner can normally be reached on M-F (8:30-17:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on (703) 305-4815. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

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January 30, 2004



KENNETH S. KIM  
PRIMARY EXAMINER